

Coal Industry Courses

TO ENROLL CONTACT:

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ATMOSPHERIC MONITORING SYSTEMS (AMS), WITH EMPHASIS ON FIRE PROTECTION

[EL600G]

This course is designed to familiarize the student with the Safety Standards which apply to the Automatic Fire Sensor and Warning Device Systems also known as an Atmospheric Monitoring System, covered under 30 CFR 75.1103 and 30 CFR 75.351, and changes made under the Mine Improvement and New Emergency Response Act of 2006 (MINER Act). A hands-on session will be held at the Mine Simulation Lab to give the student a practical understanding of the system.

Contents:

- MSHA Handbook on AMS Inspection Procedures, Provided by the Instructor
- Installation and Calibration Requirements
- An In-depth Understanding of 30 CFR Application
- Hands-on Session in the Mine Simulation Lab
- PowerPoint Presentation on the Aracoma Disaster and Changes Made in Fire Prevention Since 2006.

**Technical Coordinators: Cliff Adkins
Larry Cook**

Course Length: 1 day

Tuition: \$84.00

Dates: Scheduled upon request with a minimum of 10 attendees

BLASTING (SURFACE) (COAL)

[EX316C]

This course discusses the characteristics and use of explosives and blasting agents. It is designed to teach blasting standards in accordance with Institute Makers of Explosives (IME) guidelines and the Code of Federal Regulations (30 CFR). The course is structured for MSHA coal mine safety and health inspectors and industry personnel.

Contents:

- Definitions
- Transportation and Storage of Explosives and Blasting Agents
- Detonation Units
- Misfires
- Electric and Nonelectric Blasting Operations
- Explosives Hazards and Accidents
- Safe Blasting Principles (Work Procedures and Blast Plans)
- Initiation Systems

Technical Coordinator: Roger Montali

Course Length: 3 days

Tuition: \$252.00

Dates: Scheduled upon request with a minimum of 10 attendees

ELECTRICAL SAFETY FOR COAL MINERS

[EL601C]

This course is designed to provide practical methods and techniques to identify electrical hazards and the appropriate enforcement actions to be taken. This course is for coal inspection personnel with limited or no electrical expertise.

Contents:

- Basic Electrical Theory
- Basic Circuitry
- Hazard Recognition
- Grounding
- Power Distribution Systems
- Regulations and Policies
- Personal Safety
- Citations and Orders
- Inspection of Electrical Equipment
- Permissibility

NOTE: This course is not intended for Electrical Specialists.

Technical Coordinators: Cliff Adkins

Art Wooten

Course Length: 3 days

Tuition: \$252.00

Dates: Scheduled upon request with a minimum of 10 attendees

Scheduling at Worksite Available Upon Request

FIRST RESPONDER WORKSHOP

[GS645G]

This is a one-day workshop designed to provide MSHA personnel, the mining industry, miners' representatives, firefighters, law enforcement personnel and emergency medical personnel with information and precautions that should be taken before or while responding to an emergency at surface mines, surface areas of underground mines, and surface mining facilities.

Contents:

- Emergency Response Planning
- Large Haul Truck Fires
- Structures in and Around Surface Facilities
- Use of Mine Equipment for Rescue & Fire Fighting
- Traffic Control on Mine Roadways
- First Responder Vehicle Maintenance (Brakes & Steering)

Hazards addressed:

- Explosives Storage
- Surge Piles
- Draw-off Tunnels
- Fuel Storage (Stationary and Mobile)
- Belt Conveyors
- Electricity
- Preparation Plants and Mills
- Off-Road Haul Trucks and End Loaders
- Highwalls and Highwall Mining Machines
- Chemicals and Gases Common to Mines and Facilities
- Surface Areas of Underground Mines

Technical Coordinator: Johnnie Tyler

Course Length: 1 day

Tuition: None

Date: *Scheduled upon request with a minimum of 10 attendees*

Scheduling at Worksite Available Upon Request

HAULAGE (SURFACE) (COAL)

[HL301C]

Haulage accidents have been one of the highest categories of fatal accidents for several years at our Nation's surface mines. This course teaches the recognition of hazards that may exist in surface haulage.

Contents:

- Compliance Determination of 30 CFR Parts 77.400 and 77.1600
- Inspection Procedures for Surface Mining Equipment
- Use of Signs and Traffic Control on Mine Property
- Haul Road Design
- Brake Systems
- New Technology (Video Cameras)
- Rollover Protective Structures (ROPS)
- Falling Object Protective Structures (FOPS)
- Tire and Rim Safety
- Overview of Fatal Accidents

**Technical Coordinators: Johnnie Tyler
Roger Montali**

Course Length: 3 days

Tuition: \$252.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

INDUSTRIAL HYGIENE

[IH315C]

This course will enable mine safety and health inspectors to recognize and effectively assess health hazards, other than dust and noise, in coal mines and related areas. Laboratory exercises will include sampling procedures and techniques for more common health hazards that may be encountered during inspections. Other health hazard sampling procedures and techniques as well as health effects – respiratory, dermatological, carcinogenic – will be discussed.

Contents:

- Industrial Hygiene Terminology
- Toxicology
- Solvents
- Asbestos
- Radiation (Gamma, Ultraviolet)
- Sampling Methods
- Methods of Control
- Contaminants Detected at Mine Sites

Technical Coordinator: Robert Cline
Terry Phillips

Course Length: 3 days

Tuition: \$252.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

Scheduling at Worksite Available Upon Request

LONGWALL MINING AND INSPECTION PROCEDURES

[MS302C]

This course will introduce the student to longwall mining. It will also make the experienced coal mine inspectors more familiar with the trends and new technology in longwall mining. It will cover all aspects of longwall mining, including approved MSHA plans.

The first part of the course will cover all aspects of mining, including a review of all basic components of longwall mining systems and their functions. It will also cover longwall moves, degasification, and ground control for longwall faces.

The second part of the course will stress inspection procedures. It will cover all areas – from outby to the longwall face. This section has accompanying text and relates inspection procedures to the applicable standards in 30 CFR Parts 75 and 18.

Contents:

- History and Trends
- Parts of a Longwall (shearer, plow, panline, stage loader, drives, etc.)
- Shields (parts and controls)
- Strata Control (above the longwall)
- Hydraulics
- Longwall Moves
- Special Roof Control Products for Longwalls
- Basic Longwall Electrical Systems
- Degasification
- Respirable Dust Control
- Inspection Procedures (Special Emphasis)
- Regulations

Technical Coordinators: Jon Braenovich

Art Wooten

Course Length: 1 day

Tuition: \$84.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

MINE EXPLOSION PREVENTION

[VN701G]

This course will review the causes and prevention of underground bituminous coal mine explosions. Students will learn to identify and address conditions which are known to cause or propagate explosions. Applicable federal mining laws will be discussed and explained.

Content will include but not limited to:

- Sources and Control of Coal Dust
- Accumulation of Combustible Material
- Rock Dust Application and Sampling

Technical Coordinator: Jonah Pritt

Course Length: 1 day

Tuition: \$84.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

MINE HOIST AND ELEVATOR INSPECTION PROGRAM TRAINING

[HS606G]

This training module covers the inspection of mine hoist and elevators and the impact of the mine environment on critical hoist and elevator components. An emphasis will be made also on Mechanical Escape Facilities. It will enable the student to perform basic mine hoist and elevator inspections, focusing on critical safety concerns, including those identified in recent mine accidents. The material will be correlated to the applicable sections of 30 CFR, the ASME A17 Elevator Code and variety of information pertaining to wire ropes.

During the hands-on time, the student will be taught the proper way to measure a wire rope, when it is required, locations of measurements and the “out of service” criteria for both wire ropes and their terminations. This course is for MSHA coal and metal/nonmetal mine safety and health inspectors and industry personnel.

Contents:

- Wire Rope Technology
- Terminations and Attachments
- Removal Criteria According to 30 CFR
- A Review of the ASME A17 Elevator Code
- Hazard Recognition
- Inspection Procedure
- Citation and Order Writing

Technical Coordinator: Cliff Adkins

Course Length: 3 days

Tuition: \$252.00

Dates: At the Academy's Discretion

Scheduled upon request with a minimum of 10 attendees

MINE VENTILATION

[VN700G]

This course will review the basic principles of underground coal mine ventilation along with applicable federal mining laws.

Content will include but not limited to:

- Mine Fans
- Mine Gases
- Air Readings
- Ventilation Plans
- Mine Maps
- Bleeders
- Seals
- Ventilation Control
- Face Ventilation
- Outby Ventilation

Technical Coordinator: Jonah Pritt

Course Length: 3 days

Tuition: \$252.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

NOISE HAZARDS, REGULATION, AND CONTROL

[IH321G]

This course provides the participant with information on the hazards associated with overexposure to noise. It thoroughly reviews 30 CFR Part 62 and appropriate monitoring and control methods. The course also discusses the elements of an effective hearing conservation program.

Contents:

- Characteristics of Noise
- Impact of Noise on Health
- Noise Monitoring
 - Sound Level Meters
 - Dosimeters
 - Octave Band Analysis
 - Audiometric Examinations
- Noise Regulation - Compliance Discussion
 - Exposure levels
 - Monitoring
 - Hearing Conservation Programs
- Training Requirements
- Control methods

Technical Coordinator: Robert Cline

Terry Phillips

Course Length: 3 days

Tuition: \$252.00

Dates: *Scheduled upon request with a minimum of 10 attendees.*

ROOF CONTROL SEMINAR

[RC501C]

This seminar is designed for miners, company managers, engineers, trainers, roof bolter machine operators, and for any individual involved with coal mine roof safety. Federal and state enforcement personnel desiring to increase their knowledge in the latest developments in roof and rib control will also find this seminar very beneficial.

This seminar will update personnel on new products and methods related to roof stability. It will also include presentations by personnel from the Academy, Technical Support, MSHA headquarters, other government agencies, and industry. All subjects will incorporate safe mining practices which will help reduce roof fall injuries and fatalities. The seminar will discuss new roof control techniques, trends, and developments.

Contents:

- New Roof Bolting Products
- Supplemental Supports
- Roof Control Fatality Trends and Prevention
- Roof Control Machinery Updates

Technical Coordinator: Jon Braenovich

Course Length: 1 day

Tuition: None

Dates: May 27, 2015

SLOPE AND SHAFT SINKING SAFETY

[RC310G]

This course will include a description of the most common conventional slope and shaft construction process, the hazards associated with slope and shaft work, and inspection procedures. It will also discuss the hazards associated with hoisting and cover the inspection procedures for wire ropes.

Contents:

- Slope and Shaft Construction Process
- Ventilation
- Ground Control
- Hoisting
- Electrical
- Health
- Slope and Shaft Sinking Plans
- Inspection Guidelines
- Hazard Identification

Technical Coordinator: Roger Montali

Jonah Pritt

Course Length: 2 days

Tuition: \$168.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

SURFACE FACILITIES AND COAL PREPARATION

[PP601C]

This course is designed to familiarize the student with equipment and processes used in coal preparation plants; hazards that might exist around preparation plants; and inspection requirements for such plants. This course has been expanded to include structural safety in an effort to eliminate surface structural failures in the mining industry.

Contents:

- Structural Safety
- Equipment Guarding
- Stockpile Safety
- Delivery Methods to the Plant
- Crushing, Sizing, and Washing Processes
- Dewatering and Drying
- Storage of Raw and Clean Coal
- Potential Hazards
- Preparation Plant Inspection

Technical Coordinator: Johnnie Tyler

Course Length: 3 days

Tuition: \$252.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

Scheduling at Worksite Available Upon Request

UNDERGROUND DIESEL EQUIPMENT/VENTILATION

[VN321G]

This course provides the participants with techniques to conduct an evaluation of existing underground diesel mining equipment. Basic air sampling principles will be presented. The impact of diesel equipment on the mine ventilation system and the mine ventilation plan will be discussed. The health hazards associated with diesel equipment and diesel fuel will be examined.

Primary emphasis will focus on the Code of Federal Regulations (30 CFR) related to underground mining operations. The class will integrate technology with case studies and basic laboratory work.

Contents:

- Code of Federal Regulations Review
- Air Sampling Procedures
- Introduction to Basic Air Flow Measurement Techniques
- Equipment
- Health Hazards
- Proper Health Sampling Techniques
- Review of Diesel Technology

**Technical Coordinators: Jonah Pritt
Cliff Adkins**

Course Length: 3 days

Tuition: \$252.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

UNDERGROUND ELECTRICAL CIRCUIT PROTECTION OVERVIEW

This course is designed to provide an overview of the requirements of the National Electrical Code as applied to underground electrical circuit protection and provides compliance information for the mining community. This course is for coal industry electrical instructors and maintenance personnel.

Contents:

- Trailing Cables and Power Cables
- Application of 30 CFR and the NEC Underground
- General Rules for Circuit Protection
- Protection of Motor Circuits
- Protection of Non-motor Circuits
- Protection of Combination Circuits

Technical Coordinator: Larry Cook

Course Length: 1 day

Tuition: \$84.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

Scheduling at Worksite Available Upon Request

UNDERGROUND HAULAGE, TRANSPORTATION, AND MACHINERY (COAL)

[HL321C]

Haulage or machinery-related accidents continue to be one of the leading causes of fatalities in underground mining. These two categories are also the leading causes of nonfatal accidents in underground mining which result in lost work days.

This course for MSHA Coal Journeyman inspectors teaches recognition of some of the hazards associated with haulage equipment and other machinery found in underground coal mines and methods to eliminate them. The inspector will recognize haulage hazards and the appropriate enforcement action to take.

Contents:

- Recent Statistical Data
- Investigative Findings of Some Recent Accidents
- Difference Between Accidents Classified as Haulage and Those Classified as Machinery
- Regulations and Policy
- Safeguards
- Enforcement Action: Citations and Orders

**Technical Coordinators: Brandon Ellison
Cliff Adkins**

Course Length: 2 days

Tuition: \$168.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

Scheduling at Worksite Available Upon Request

WORKPLACE EXAMINATIONS

[VN702G]

This course is designed for mine examiners. Discussion will focus on what the examiner should be looking for during a workplace examination. Applicable federal mining laws will be discussed and explained.

Content will include but not limited to:

- Pre-shift Examinations
- Supplemental Examinations
- On-Shift Examinations
- Weekly Examinations
- Hazard Identifications

**Technical Coordinators: Terry Phillips
Jonah Pritt**

Course Length: 1 day

Tuition: \$84.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

Scheduling at Worksite Available Upon Request

ANNUAL RETRAINING FOR IMPOUNDMENT QUALIFICATION

[IM602C]

This course provides the annual retraining requirements for qualified impoundment mine safety and health inspectors. Impoundment mine safety and health inspectors are required to receive annual retraining in accordance with the requirements specified in the Code of Federal Regulations [30 CFR 77.107-1(b)].

Please Note: MSHA Qualification and Certification no longer accepts Social Security Numbers on the application form that you must fill out in order to receive your qualification for impoundment inspection card after successful completion of the course. You will need an MSHA Individual Identification Number, available by applying online at:

<http://www.msha.gov/forms/elawsforms/5000-46.htm>

Contents:

- Reviews of Proper Inspection Procedures
- Signs of Impoundment Stress
- Instrumentation Monitoring
- Construction Monitoring
- Emergency Action Planning
- Foundation Analysis
- Geotechnical Investigations
- Breakthrough Potential Analysis

Technical Coordinator: Jared Adkins

Course Length: 4 hours

Tuition: \$48.00

Dates: November 19, 2014

May 14, 2015

August 20, 2015 *Scheduled upon request with a minimum of 10 attendees*

Scheduling at Worksite Available Upon Request

QUALIFICATION FOR IMPOUNDMENT INSPECTION

[IM601C]

This course provides the initial training for personnel who are required to inspect impoundments. Successful completion of this course qualifies the participant to inspect impoundments as required by the Code of Federal Regulations [30 CFR 77.216-3(g)].

Please Note: MSHA Qualification and Certification no longer accepts Social Security Numbers on the application form that you must fill out in order to receive your qualification for impoundment inspection card after successful completion of the course. You will need an MSHA Individual Identification Number, available by applying online at:

<http://www.msha.gov/forms/elawsforms/5000-46.htm>

Contents:

Introductory training on:

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- Recognizing Deficiencies and Signs of Distress
 - Failure Modes
 - Foundation Analysis
 - Geotechnical Investigation
 - Breakthrough Potential Analysis
 - Common Instrumentation
 - Facility Configurations
 - Field Hazard Classifications
 - Reporting Requirements
 - Inspection Forms

Technical Coordinator: Jared Adkins

Course Length: 8 hours

Tuition: \$84.00

Dates: November 17, 2014

May 12, 2015

August 18, 2015

Scheduled upon request with a minimum of 10 attendees

RESPIRABLE COAL MINE DUST SAMPLER CALIBRATION/MAINTENANCE CERTIFICATION

[IH602C]

This course provides the initial training for personnel who are required to calibrate and maintain coal mine dust sampling equipment.

Successful completion of this course certifies the participant to calibrate and maintain respirable coal mine dust sampler units under the current Code of Federal Regulations (30 CFR Parts 70/71/90).

Contents:

- Properties of the Approved Sampling Unit
- Responsibilities of the Certified Person for Maintenance and Calibration

Hands-on Instruction:

- Pump Calibration Procedures
- Maintenance Requirements
- Sampling Unit Inspection
- Pre-Shift Checks of Approved Sampling Unit

**Technical Coordinator: Robert Cline
Terry Phillips**

Course Length: 8 hours

Tuition: \$84.00

Dates: May 6, 2015

July 29, 2015

Scheduled upon request with a minimum of 10 attendees

Scheduling at Worksite Available Upon Request

RESPIRABLE COAL MINE DUST SAMPLING CERTIFICATION

[IH601C]

This course provides the initial training for personnel who are required to collect coal mine dust samples.

Successful completion of this course certifies the participant to collect and submit respirable coal mine dust samples under the current Code of Federal Regulations (30 CFR Parts 70/71/90).

Contents:

Instruction in the Regulations Governing the Coal Mine Operator's Respirable Dust Sampling Program including:

- Nature of Respirable Dust Hazards
- Responsibilities of the Certified Sampler
- Respirable Dust Sampling Procedures
- Approved Sampler Units
- On-Shift Parameter Checks

Hands-on Instructions for Sampling Unit:

- Assembly
- Inspection
- Use

Technical Coordinator: Robert Cline

Terry Phillips

Course Length: 8 hours

Tuition: \$84.00

Dates: May 5, 2015

July 28, 2015

Scheduled upon request with a minimum of 10 attendees

Scheduling at Worksite Available Upon Request

ACCIDENT PREVENTION TECHNIQUES

[SF601G]

This course is designed for safety managers/directors, mine managers, or anyone in the mining industry involved in safety management. Several proven accident reduction techniques are covered during the three-day class.

The course begins with a discussion on the principle of multiple causation and the importance of identifying the significant contributing factors in most mining accidents. Accidents/ incidents are divided into the three levels of causation with examples of each level discussed. Discussions focus on the indirect level of causation through a technique of identifying performance problems as either skill or motivational. Unsafe conditions and unsafe work practices are addressed through job safety analysis and job observation. Stress, safety communications, and effective safety talks will be covered.

The class concludes with a health and safety survey which can identify the strengths and weaknesses of a company's health and safety program.

Contents:

- Accident/Incident Analysis
- Analyzing Performance Problems
- Safety Communications/Promotion
- Developing Effective Safety Talks
- Managing Stress
- Job Safety Analysis
- Job Observation
- Accident Investigation
- Mine Safety Program Rating Procedures

Technical Coordinator: Joe Mackowiak

Course Length: 3 days

Tuition: \$252.00

Dates: *Scheduled upon request with a minimum of 10 attendees, maximum of 16*

Scheduling at Worksite Available Upon Request

INSTRUCTOR TRAINING WORKSHOP (PART 48)

[GS643G]

This course is intended to improve the instructional skills, abilities, and knowledge of mine trainers. Participants will be required to select, develop, and present a 15-minute training segment on a health or safety topic in 30 CFR Part 48. The presentation will be videotaped for playback and individual review.

Approval as a Part 48 instructor is a two-part process. (1) You must demonstrate that you have knowledge of the subjects that you will be teaching. This is generally accomplished by submitting an application to your local MSHA District Manager showing your mining experience and education. (2) You must demonstrate that you have the ability to teach. Successful completion of this course will assist you in meeting this requirement. There are no prerequisites for this course. Mining experience is helpful.

Contents:

- Principles of Adult Instruction
- Developing Objectives and Developing Criterion Test Items
- Outlining the Training Content
- Determining the Instructional Methods
- Developing and Using Training Aids
- Developing a Lesson Plan
- Using Facilitation Skills
- Part 48 Requirements

Technical Coordinator: Bret Park

Course Length: 3 days

Tuition: \$252.00

Dates: Dec 2 - 4, 2014 March 24 - 26, 2015

June 16 - 18, 2015 September 15 - 17, 2015

Scheduled upon request with a minimum of 10 attendees, maximum of 20

Scheduling at Worksite Available Upon Request

INTRODUCTION TO MINING

[MS701G]

The mining industry fulfills the important function of providing society's raw materials. Increasingly, mining has become more complex, due to rapid technological changes and comprehensive regulations. This complexity coupled with the industry's rich and traditional use of unique terminology can make understanding mining difficult for persons unfamiliar with it. This course introduces participants to the broad scope of mining, and is for those with little or no mining knowledge. It will provide participants with a working understanding of the various aspects of the industry.

Contents:

- Mining Terminology
- Mineral Exploration and Geology
- Description of the Different Mining Methods
- Coal Preparation and Mineral Processing

Health and Safety Regulations including:

- Ground/Roof Control
- Ventilation and Dust Control
- Haulage and Hoisting
- Personal Protective Equipment
- Mapping
- Mine Examinations
- Electricity
- Explosives
- Industrial Hygiene

Technical Coordinator: Randy L. Skaggs

Course Length: 3 days

Tuition: \$252.00

Dates: July 28 - 30, 2015

Scheduled upon request with a minimum of 8 attendees, maximum of 15

Scheduling at Worksite Available Upon Request

LAW/REGULATION/POLICY, CITATION/ ORDER WRITING, INSPECTION PROCEDURES
[LP710G]

This course is designed for anyone in the mining industry to gain a better understanding of enforcement procedures used to protect the health and safety of all miners. The course reviews handbooks, policy, and procedures used to enforce the Mine Acts (1977/2006) and 30 CFR (Code of Federal Regulations.) Each course will be designed for either coal or metal/nonmetal. Classroom activities and discussions will blend in with researching materials covered. A copy of the combined Mine Acts, 30 CFR, and Program Policy will be provided.

Contents:

- Pre-Inspection Conference
- Inspection
- Notetaking
- Pictures
- Discussion of Violations at Issuance
- Close-Out Conference
- Determining Root Cause
- Research of Regulations/Policy/Procedures

Technical Coordinators: John Dagner
Brandon Ellison

Course Length: 3 days

Tuition: \$252.00

Dates: *This course will be offered at worksites only. Attendees must schedule in advance for available dates with a minimum of 10 attendees and a maximum of 20*

MINE ACCIDENT INVESTIGATION TECHNIQUES

[IV601G]

This course is directed towards safety directors, managers, foremen, union safety committee persons, or mining industry (metal/nonmetal or coal) individuals involved in accident investigation. Course content reviews basic guidelines, procedures, and techniques for the preparation and handling of investigations of accidents and other incidents involving health and safety in the mining industry.

Classroom activities and discussions cover reasons for accident investigations, the investigative process, data collection, accident reconstruction, and proper analysis for corrective actions.

Contents:

- Overview of Accident Investigation
- Pre-Investigation Activities
- Accident Reconstruction
- Photography/Sketching
- Interviewing Techniques
- Data Collection and Evaluation
- Developing Conclusions and Recommendations
-

Technical Coordinator: David Elkins

Course Length: 3 days

Tuition: \$252.00

Dates: February 3 - 5, 2015

Scheduled upon request with a minimum of 10 attendees, maximum of 16

MINE CONSTRUCTION, MAINTENANCE, AND REPAIRS SAFETY

[MS615G]

This course is designed for the mining construction industry, related support groups, mining regulatory agencies, and others that are involved with the planning, design, and application of mine construction and maintenance activities.

Contents:

- Accident Analysis and Prevention
- Effective Work Area Examinations
- Mobile Equipment Examinations
- Fall Prevention
- Basic Crane Safety
- Material Storage and Handling
- Conveyor Belt Safety
- Confined Space Safety
- Wire Ropes and Slings
- Surface Installations

**Technical Coordinators: Johnnie Tyler
Roger Montali**

Course Length: 2 days

Tuition: \$168.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

Scheduling at Worksite Available Upon Request

MINE EXPLOSION PREVENTION

[VN701G]

This course will review the causes and prevention of underground bituminous coal mine explosions. Students will learn to identify and address conditions which are known to cause or propagate explosions. Applicable federal mining laws will be discussed and explained.

Content will include but not limited to:

- Sources and Control of Coal Dust
- Accumulation of Combustible Material
- Rock Dust Application and Sampling

Technical Coordinator: Jonah Pritt

Course Length: 1 day

Tuition: \$84.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

ROOT CAUSE ANALYSIS WORKSHOP

[SF602G]

The purpose of the Root Cause Analysis Workshop is to begin action toward reducing violations, accidents, and incidents at a mining operation. Root Cause Analysis recognizes that violations, accidents, and incidents are an indicator of a breakdown which allows these occurrences to happen. This method will result in a professional approach to accident prevention, and can act as a training mechanism for workers and mine operators.

Class activities will involve citations and orders issued during an inspection and the incidents and/or accidents that a mine has encountered to initiate a process of analysis that will start an inquiry into questions such as:

- What is causing these violations, accidents, and incidents to occur at the mining operation?
- Why does the mine have the same type of violations at each inspection?
- Why does the mine continue to have the same kind of accidents and incidents?
- What can be done to eliminate the violations, accidents, and incidents at this mine?

Technical Coordinator: Joe Mackowiak

Course Length: 1 day

Tuition: \$84.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

Scheduling at Worksite Available Upon Request

MINE RESCUE TRAINING

[ME601G]

This course is designed for mine rescue teams and mining industry personnel who may be associated with responding to mine emergencies, such as mine fires, explosions, and inundations. The major part of the training involves participation in exercises in the Mine Simulation Laboratory.

Contents:

- Mine Emergency Response Overview
- Mine Emergency Operations
- Mine Emergency Personnel
- Mine Emergency Communications and Decision Making
- Mine Emergency Practices and Procedures
- Mine Emergency Rescue and Recovery Strategy
- Tactical Implementation of Operations

Technical Coordinator: Mack Wright

Course Length: 1 day

Tuition: \$84.00*

Dates: *Scheduled upon request with a minimum of 6 attendees*

* Tuition may be waived for mine rescue team members participating in team training activities, up to ten (10) days per calendar year.

Scheduling at Worksite Available Upon Request

SURFACE FACILITIES AND COAL PREPARATION

[PP601C]

This course is designed to familiarize the student with equipment and processes used in coal preparation plants; hazards that might exist around preparation plants; and inspection requirements for such plants. This course has been expanded to include structural safety in an effort to eliminate surface structural failures in the mining industry.

Contents:

- Structural Safety
- Equipment Guarding
- Stockpile Safety
- Delivery Methods to the Plant
- Crushing, Sizing, and Washing Processes
- Dewatering and Drying
- Storage of Raw and Clean Coal
- Potential Hazards
- Preparation Plant Inspection

Technical Coordinator: Johnnie Tyler

Course Length: 3 days

Tuition: \$252.00

Dates: *Scheduled upon request with a minimum of 10 attendees*

Scheduling at Worksite Available Upon Request

BLASTING SEMINAR

[EX524G]

This seminar is designed for company managers, blasting engineers, blasters, state and Federal mine safety and health inspectors (coal and metal/nonmetal), and others involved with the planning, design, and the use of explosives in the mining industry. The most recent blasting techniques, trends, and developments will be discussed. Participants will have the opportunity to share ideas in small group sessions.

Contents:

- Vibration Analysis/Seismographs/Efficient Blasting Techniques
- Storage of Explosives
- Handling and Use of Explosives
- Silica Dust and Toxic Gas Hazards in Blasting
- Blasting Agents and Emulsions
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Technical Coordinator: Kevin Malay

Course Length: 2 days

Tuition: None

Dates: January 21 - 22, 2015

SURFACE HAULAGE WORKSHOP

[HL502G1]

This workshop brings together representatives of the mining industry and others that are involved with the planning, design, and use of surface mine haulage equipment and/or systems. The seminar will provide an opportunity for the participants to exchange information and observe firsthand new technology, equipment, and innovations that are being used in the mining industry. Industry and other technical presenters will provide presentations, exhibits, and equipment displays that allow the participants to interact in small groups with the presenters and each other.

Contents:

- Equipment Brake Systems
- Equipment Safety Instructions
- Tire Care and Maintenance
- Crane Safety
- Solutions to Mobile Equipment Blind Spots
- Dump Point Safety
- Diesel-Electric Equipment
- Fire Suppression on Haulage Equipment
- Haul Roads – Keys to Accident Prevention
- Hazards and Accident Prevention in Belt Conveyor Operations
- New Automation Technologies – Conveyor, Plants, Mills
- Safe Handling and Transport of Bulk Blasting Agents
- Safety Aspects of Mounting/Demounting Tires
- Haul Road Design

Technical Coordinator: Roger Montali

Course Length: 2 days

Tuition: None

Dates: August 25 - 26, 2015

TRAM/NATIONAL MINE INSTRUCTORS SEMINAR

[GS501G]

This seminar provides opportunities for health and safety trainers to improve their training programs with new materials and new ideas. The seminar will also include an exhibit of training materials developed by MSHA, state grants recipients, and the mining industry. Small workshops allow participants to interact with workshop leaders and other participants.

Contents:

- Innovative Instructional Techniques
- Instructional Technology and Computer Applications
- Underground Mine Safety (Metal/Nonmetal and Coal Topics)
- Surface Mine Safety (Metal/Nonmetal and Coal Topics)
- General Safety
- Health
- Ergonomics
- Supervisory Issues

Another feature of the seminar is the Training Materials Competition. Health and safety training materials entered in the competition will be judged and winners will be announced at the Seminar. All materials entered in the competition will be displayed.

Technical Coordinator: Robert Glatter

Course Length: 2½ days

Tuition: None

Dates: October 13 - 15, 2015

WESTERN BLASTING SEMINAR

[EX601G14]

This seminar is designed for company managers, blasting engineers, blasters, state and Federal mine safety and health inspectors (coal and metal/nonmetal), and others involved with the planning, design, and the use of explosives in the mining industry. The most recent blasting techniques, trends, and developments will be discussed. Participants will have the opportunity to share ideas in small group sessions.

Contents:

- Vibration Analysis/Seismographs/Efficient Blasting Techniques
- Storage of Explosives
- Handling and Use of Explosives
- Silica Dust and Toxic Gas Hazards in Blasting
- Blasting Agents and Emulsions

Technical Coordinator: Kevin Malay

Course Length: 2 days

Tuition: None

Dates: Summer 2015